

# FINAL RESULTS OF ELECTRONIC VOTING EXIT POLL

*CONDUCTED BY:*





University of Connecticut  
*Center for Survey Research & Analysis*

January 12, 2004

Secretary of the State Susan Bysiewicz  
30 Trinity St.  
Hartford, CT 06106

Dear Secretary Bysiewicz:

On November 4<sup>th</sup>, 2003, the Center for Survey Research and Analysis (CSRA), working in conjunction with the Office of the Secretary of the State of Connecticut and the League of Women Voters conducted an exit poll of Connecticut voters who used new electronic voting technologies to vote in their town's municipal elections.

The survey finds that strong majorities of voters from all eight volunteer towns were very satisfied with their experience using the new technologies.

- 92% rated the new technology positively, either "excellent" (65%) or "good" (27%).
- On a scale of one to seven, with one meaning "extremely difficult" and seven meaning "extremely easy," voters rated the ease of use of the new technology at 6.23.
- 92% of voters said that they are confident that their vote was recorded correctly.
- Voters of all ages, education levels and income brackets rated the new technologies highly, regardless of the type of machine they used on Election Day.

CSRA was pleased to be a part of the 2003 pilot project and to have had the opportunity to study voters' evaluations of these new systems. Your office should be applauded for working to ensure that every vote counts in Connecticut. The attached report details respondents' perceptions and levels of satisfaction with the new voting machines, I hope you find it helpful in your deliberations. If I can be of any further assistance to you, please do not hesitate to get in touch.

Sincerely,

Ken Dautrich  
Director - CSRA

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## **EXIT POLL SURVEY RESULTS**

On Tuesday, November 4, 2003, the Office of Susan Bysiewicz, Secretary of the State of Connecticut launched a pilot program of new voting technologies in eight volunteer towns around the state. The pilot program was to test new voting technologies in order to ensure Connecticut's compliance with the requirements of the Help America Vote Act (HAVA) of 2002. In conjunction with the League of Women Voters, the Center for Survey Research and Analysis (CSRA) at the University of Connecticut conducted an exit poll of voters in the eight towns to measure public opinion of the effectiveness of the new voting machines. This report details the methodology utilized and summarizes the results of the exit poll.

### **I. Methodology**

#### Survey Design

The exit poll was designed to be a self-administered questionnaire consisting of 12 questions (see attached) on the new technology and six demographic questions. The survey was fielded by CSRA staff and graduate students in the Masters in Survey Research Program, all of whom received training prior to going into the field.

In 11 polling locations across the eight volunteer towns (Hartford, West Hartford, Cromwell, Wilton, Sharon, Southington, Griswold and Middletown,) CSRA interviewers, with the assistance of representatives from the League of Women Voters conducted interviews from the time the polls opened on Election Day (6am) until 1pm. Across the 11 polling locations, a total of 1,479 voters were randomly selected and administered the questionnaire. The sampling error for the poll is +/- 2.6%.

Analysis of the exit poll is based on cross tabulations of the final data. The results for each question are analyzed by selected demographics, such as age, income, gender, etc. The towns participating in the pilot program volunteered to do so, and were therefore not scientifically selected based on characteristics of their populations. As a result, the data do not allow comparisons to be made either across towns or across the four types of technology used in the pilot program. In the final report, all results for the four voting machines used are given by reporting the high and low scores for each question.

#### Sample Design

The number of interviews to be collected in each town was designed to be proportional to their contribution to the overall population of voters using a given technology. For example, the towns of Cromwell and West Hartford were assigned voting machines manufactured by Sequoia Voting Systems. Since the total number of registered voters in the Cromwell polling location (8121) was higher than the number of voters in the West Hartford polling location (815), the number of interviews collected in Cromwell represent a higher percentage of the total number of interviews collected about the Sequoia Voting Systems machine. The number of interviews collected in each polling location may

differ, however they remain proportional. Where the number of interviews exceeded the intended total, the data has been weighted to maintain proportionality.

After estimating voter turnout to be approximately 30%, we approximated that 80% of voters approached by our interviewers would be willing to participate in the survey. Having determined the number of interviews that could be collected, we calculated the rates at which interviewers would sample respondents, known as the “nthing” rate. By adhering to a given nthing rate, we were able to ensure that the interviewers administered the survey not only at random, but also at a rate that covered every hour of the exit poll evenly.

### Data Management

Upon completion, respondents placed their surveys into a ballot box to ensure confidentiality. The surveys were then returned to CSRA’s offices in Storrs, where they were sorted and the data entered into an SPSS data document. The originals were retained and remain on file.

## **II. Results**

### Overall Rating

Voters who used the new voting technologies were overwhelmingly positive in their assessments. Overall, more than nine out of ten (92%) gave the machine they used a positive rating of either “excellent” or “good.” More than six out of ten (65%) gave the highest rating of “excellent.” Men and women gave identical positive ratings of 92%, while across age groups the new machines rated similarly well, with 95% of 18-34 year olds, 93% of 35-49 year olds, 95% of 50-64 year olds and 86% of those over 65 years old giving a rating of either “excellent” or “good.”

The new voting technology received high marks across income and education levels as well as across the spectrum of frequency of technology use. In addition, both occasional and habitual voters rate the new technology highly, with casual and die hard voters both giving the machines a net positive rating of over 90%.

High ratings were given to all four brands of technology fielded for the exit poll, with the lowest rated vendor receiving a net positive rating of 84% and the highest rated vendor receiving a 95% “excellent” or “good” rating.

### Confidence in Technology

Like the overall rating of the new voting equipment, voters’ confidence that their vote was recorded correctly is extremely high. Overall, 92% of voters said that they were “extremely confident” (51%) or “confident” (41%) that their vote was accurately recorded. All age groups expressed 90% or higher net confidence in the new technology. Across all levels of education, from less than a high school diploma to graduate degrees,

voters expressed at least an 87% net rating in their confidence in the new machines having recorded their vote correctly.

### Ease of Use

Using a scale of one to seven, where one meant “extremely difficult” and seven meant “extremely easy,” voters were asked to rate a series of seven characteristics of the voting machines. Overall, every characteristic measured received a mean rating of 6.23 or higher. These high ratings suggest that voters respond quite favorably to the various technologies tested.

When asked how easy the voting equipment was to use, voters overall rated the machines at a mean score of 6.23 out of a possible seven. The scores given to the four technologies ranged from 5.95 to 6.43.

Voters’ comprehension of how to vote on the machines was rated very high, with respondents rating understanding how to vote at 6.31 overall. The vast majority of voters found all four machines easy to understand, with ratings ranging from 6.13 to 6.55.

The new machines did not present problems in terms of voters seeing all the elections on the ballot, which rated a 6.32. All four machines rated highly as well, with voters reporting a range of 6.17 to 6.49.

Overall, voters considered finding the candidate of their choice to be very easy, rating this characteristic at 6.39 out of seven. The four types of machines used rated similarly high, with scores ranging from 6.2 to 6.53.

Voters found changing their vote to be very easy, rating this attribute at 6.25. Voters also gave all four technologies high scores, ranging from 5.96 to 6.44.

Confirming their voters was considered to be very easy by voters, who rated it at 6.45 overall. All four machines received similarly high scores, ranging from 6.36 to 6.62.

Seeing the party affiliation of each candidate did not prove difficult, with voters rating this feature at 6.42 overall. The four machines used all were rated highly, with scores ranging from 6.17 to 6.53.

### Advance Notification

Nearly eight out of ten voters (79%) in the participating precincts said they were aware that there was going to be a different type of voting machine used during the election on November 4<sup>th</sup>. Strong majorities for all four technologies, ranging from 68% to 83% were aware that new technologies were going to be used in the election.

### Assistance With Voting

A majority of voters (59%) received assistance when voting. The survey was unable to differentiate between voters who understood assistance as meaning help given during the actual process of voting and voters who understood assistance to mean the instruction given by representatives of the participating vendors, most of whom provided a chance to practice on a mock up at the entrances of polling locations.

### Time Taken to Vote

Nearly nine out of ten (87%) voters took less than four minutes to vote. The most common amount of times used to vote was 2-4 minutes (47%), followed by less than two minutes (40%), 5-7 minutes (9%) and eight or more minutes (3%).

## Attachments

1. Questionnaire: The questionnaire was designed by CSRA staff and was approved by the office of the Secretary of the State of Connecticut. English and Spanish versions were available in all polling locations.
2. Banner tables: The results of the survey are condensed in the attached banner tables. The tables contain columns with the following information:

**Total:** This number represents the overall results for all voters who participated in the exit poll.

**Gender:** The results of the survey broken out by males (M) in the left column and females (F) in the right.

**Education:** This column contains results by educational level: (from left to right) less than high school, high school graduate, some college, college graduate, post-graduate level college education.

**Income:** These are results across the three categories of total yearly household income: less than \$50,000, \$50,000 to less than \$100,000, and more than \$100,000.

**Technology:** The survey asked respondents how many times per week they use an automatic teller machine to do their banking. This question serves as a proxy for frequency of use of a computer based/interactive technology. The categories are in ascending order from left to right: never use an ATM machine, less than once per week, 1-3 times per week, 4 or more times per week. This column shows the results for each level of technology usage.

**Voting Frequency:** This column shows the results broken down by how often the respondents vote: some or fewer elections, most elections or every election.

**Vendor range:** This column shows the high and low values given to the new voting machines for each question. Where there are non-means responses, the net positive ratings and net negative ratings are given.

## What Did You Think About the New Voting Machines?

## .... Your Opinion Counts!

The Secretary of the State of Connecticut is interested in learning your opinions about the new voting technology you just used. The results of the study will be used to improve voting processes in Connecticut. Please note the following:

- WE DO NOT WANT TO KNOW WHO YOU VOTED FOR
- This survey is voluntary and anonymous
- There are no right or wrong answers and all results will be reported in aggregate.

Thinking about the new voting equipment you just used, please circle the answer that best reflects your opinion:

	extremely difficult				in the middle			extremely easy
1a. Using the voting equipment	1	2	3	4	5	6	7	
1b. Understanding how to vote	1	2	3	4	5	6	7	
1c. Seeing all the elections on the ballot	1	2	3	4	5	6	7	
1d. Finding the candidate of your choice	1	2	3	4	5	6	7	
1e. Changing your vote	1	2	3	4	5	6	7	
1f. Confirming your vote	1	2	3	4	5	6	7	
1g. Seeing the party affiliation of each candidate	1	2	3	4	5	6	7	

2. How would you rate the new voting equipment overall? Would you say it was . . . .

- Excellent                       Good                       Fair                       Poor

3. How confident are you that your vote was recorded correctly? Are you . . . .

- Extremely Confident     Confident             Not Very Confident     Not Confident At All

4. Were you aware that this polling location was going to be using a different type of voting technology than in previous years?                       Yes                       No

5. Did you receive assistance when you voted today?                       Yes                       No

6. Once you got to the voting machine, about how long did it take you to vote?

- Less than 2 minutes     2-4 minutes     5-7 minutes     8-10 minutes     More than 10 minutes

D1. In what year were you born?                      19 \_\_ \_\_

D2. What was the last grade of school you completed?

- Grade school or less (0-8)                       Some college (1-3 years)  
 Some high school (9-11)                       College grad (4 years)  
 High school (12)                       Post graduate (beyond 4 years)

D3. What is your gender?                       Male                       Female

D4. Total household income:

- Under \$25,000                       \$100,000 to less than \$125,000  
 \$25,000 to less than \$50,000                       \$125,000 to less than \$150,000  
 \$50,000 to less than \$75,000                       \$150,000 or more  
 \$75,000 to less than \$100,000

D5. About how many times per week do you use an automatic teller machine to do your banking?

- Never                       4-6 times per week  
 Less than once a week                       7-10 times per week  
 1-3 time per week                       More than 10 times per week

D6. Which statement best describes you?

- This is my first time voting                       I vote in most elections  
 I vote in a few elections                       I vote in every election  
 I vote in some elections

**Electronic Voting Technology Exit Poll**

**Q1a. Using the voting equipment**

	Total	Age				Gender		Education					Income			Technology Level				Voting Frequency			Vendor Range	
		18-34	35-49	50-64	65+	M	F	< HS	HS grad	Some coll	Coll grad	PG	< \$50K	\$50K - \$100K	Over \$100K	Never	< 1/week	1-3/week	4 or +/week	Some or fewer	Most elections	Every election	High	Low
<b>Mean</b>	6.23	6.34	6.28	6.33	6.07	6.23	6.22	5.62	6.37	6.29	6.14	6.27	6.09	6.42	6.22	6.18	6.22	6.36	6.13	6.27	6.27	6.23	6.43	5.95
<b>N Size</b>	1450	100	447	446	422	649	757	96	306	355	292	353	357	442	366	452	321	474	127	50	386	970		

**Q1b. Understanding how to vote**

	Total	Age				Gender		Education					Income			Technology Level				Voting Frequency			Vendor Range	
		18-34	35-49	50-64	65+	M	F	< HS	HS grad	Some coll	Coll grad	PG	< \$50K	\$50K - \$100K	Over \$100K	Never	< 1/week	1-3/week	4 or +/week	Some or fewer	Most elections	Every election	High	Low
<b>Mean</b>	6.31	6.45	6.28	6.39	6.23	6.27	6.32	5.69	6.52	6.35	6.18	6.32	6.23	6.43	6.24	6.32	6.27	6.35	6.23	6.35	6.29	6.32	6.55	6.13
<b>N Size</b>	1436	99	446	442	416	644	749	92	301	356	290	351	352	440	364	446	317	472	127	50	381	963		

**Q1c. Seeing all the elections on the ballot**

	Total	Age				Gender		Education					Income			Technology Level				Voting Frequency			Vendor Range	
		18-34	35-49	50-64	65+	M	F	< HS	HS grad	Some coll	Coll grad	PG	< \$50K	\$50K - \$100K	Over \$100K	Never	< 1/week	1-3/week	4 or +/week	Some or fewer	Most elections	Every election	High	Low
<b>Mean</b>	6.32	6.22	6.32	6.37	6.29	6.28	6.34	5.91	6.54	6.35	6.19	6.28	6.25	6.48	6.23	6.36	6.34	6.32	6.22	6.56	6.33	6.31	6.49	6.17
<b>N Size</b>	1419	99	442	442	406	634	744	89	300	348	287	351	348	437	361	437	312	471	126	47	380	953		

**Q1d. Finding the candidate of your choice**

	Total	Age				Gender		Education					Income			Technology Level				Voting Frequency			Vendor Range	
		18-34	35-49	50-64	65+	M	F	< HS	HS grad	Some coll	Coll grad	PG	< \$50K	\$50K - \$100K	Over \$100K	Never	< 1/week	1-3/week	4 or +/week	Some or fewer	Most elections	Every election	High	Low
<b>Mean</b>	6.39	6.38	6.42	6.41	6.35	6.36	6.41	6.14	6.53	6.35	6.26	6.47	6.28	6.53	6.35	6.42	6.41	6.43	6.17	6.49	6.44	6.37	6.53	6.2
<b>N Size</b>	1418	98	445	440	406	635	741	89	300	349	286	350	346	439	365	438	316	469	126	47	382	951		

**Q1e. Changing your vote**

	Total	Age				Gender		Education					Income			Technology Level				Voting Frequency			Vendor Range	
		18-34	35-49	50-64	65+	M	F	< HS	HS grad	Some coll	Coll grad	PG	< \$50K	\$50K - \$100K	Over \$100K	Never	< 1/week	1-3/week	4 or +/week	Some or fewer	Most elections	Every election	High	Low
<b>Mean</b>	6.25	6.2	6.23	6.34	6.2	6.17	6.31	5.88	6.51	6.24	6.09	6.25	6.19	6.37	6.13	6.27	6.19	6.31	6.14	6.24	6.21	6.26	6.44	5.96
<b>N Size</b>	1248	92	405	395	330	579	633	73	261	314	262	297	309	389	326	365	277	428	118	44	335	838		

**Q1f. Confirming your vote**

	Total	Age				Gender		Education					Income			Technology Level				Voting Frequency			Vendor Range	
		18-34	35-49	50-64	65+	M	F	< HS	HS grad	Some coll	Coll grad	PG	< \$50K	\$50K - \$100K	Over \$100K	Never	< 1/week	1-3/week	4 or +/week	Some or fewer	Most elections	Every election	High	Low
<b>Mean</b>	6.45	6.37	6.43	6.52	6.41	6.41	6.46	6.12	6.63	6.45	6.3	6.46	6.34	6.58	6.37	6.44	6.44	6.48	6.36	6.46	6.48	6.43	6.62	6.36
<b>N Size</b>	1390	99	437	431	393	631	722	85	290	349	288	336	343	434	356	427	311	462	125	50	371	934		

**Q1g. Seeing the party affiliation of each candidate**

	Total	Age				Gender		Education					Income			Technology Level				Voting Frequency			Vendor Range	
		18-34	35-49	50-64	65+	M	F	< HS	HS grad	Some coll	Coll grad	PG	< \$50K	\$50K - \$100K	Over \$100K	Never	< 1/week	1-3/week	4 or +/week	Some or fewer	Most elections	Every election	High	Low
<b>Mean</b>	6.42	6.33	6.45	6.44	6.42	6.41	6.43	6.13	6.61	6.41	6.3	6.45	6.34	6.55	6.43	6.45	6.46	6.45	6.33	6.64	6.48	6.4	6.53	6.17
<b>N Size</b>	1427	99	445	439	414	641	744	92	300	353	290	349	353	436	362	447	313	470	127	48	380	961		

**Q2. How would you rate the new voting equipment overall?**

	Total	Age				Gender		Education					Income			Technology Level				Voting Frequency			Vendor Range	
		18-34	35-49	50-64	65+	M	F	< HS	HS grad	Some coll	Coll grad	PG	< \$50K	\$50K - \$100K	Over \$100K	Never	< 1/week	1-3/week	4 or +/week	Some or fewer	Most elections	Every election	High net pos.	Low net pos.
<b>Excellent</b>	65%	67%	68%	71%	56%	64%	65%	44%	68%	68%	64%	66%	60%	73%	66%	62%	64%	68%	67%	78%	62%	66%	95%	84%
<b>Good</b>	27%	28%	25%	24%	30%	27%	26%	38%	26%	26%	26%	25%	29%	23%	25%	28%	26%	27%	26%	20%	32%	25%		
<b>Fair</b>	6%	5%	5%	3%	11%	6%	6%	12%	4%	5%	8%	6%	8%	3%	6%	7%	7%	3%	5%	2%	5%	7%	High net neg.	Low net neg.
<b>Poor</b>	2%		2%	2%	3%	2%	2%	6%	2%	1%	2%	2%	3%	1%	2%	3%	2%	2%			1%	3%		
<b>DK/Blank</b>	0%			0%		0%	0%	1%				0%		0%			1%				0%	0%	16%	4%
<b>Count</b>	1478	100	452	453	436	663	764	101	318	358	293	355	371	449	368	462	323	483	130	51	393	989		

**Q3. How confident are you that your vote was recorded correctly?**

	Total	Age				Gender		Education					Income			Technology Level				Voting Frequency			Vendor Range	
		18-34	35-49	50-64	65+	M	F	< HS	HS grad	Some coll	Coll grad	PG	< \$50K	\$50K - \$100K	Over \$100K	Never	< 1/week	1-3/week	4 or +/week	Some or fewer	Most elections	Every election	High net pos.	Low net pos.
<b>Extremely confident</b>	51%	53%	54%	55%	45%	50%	52%	30%	54%	47%	50%	60%	43%	56%	60%	47%	49%	56%	55%	60%	45%	53%	94%	88%
<b>Confident</b>	41%	40%	40%	39%	45%	43%	41%	57%	43%	46%	42%	33%	48%	40%	33%	46%	44%	38%	37%	36%	48%	40%		
<b>Not very confident</b>	4%	3%	3%	4%	6%	4%	3%	5%	2%	4%	4%	4%	5%	2%	4%	3%	3%	4%	6%	4%	4%	4%	High net neg.	Low net neg.
<b>Not confident at all</b>	3%	1%	3%	1%	3%	2%	3%	7%	1%	2%	2%	2%	3%	1%	3%	3%	2%	2%	3%		1%	3%		
<b>DK/Blank</b>	1%	3%		1%	1%	0%	1%	1%	0%	1%	1%	1%	1%	1%	0%	1%	2%	0%			1%	0%	10%	5%
<b>Count</b>	1478	100	452	453	436	663	764	101	318	358	293	355	371	449	368	462	323	483	130	51	393	989		

**Q4. Were you aware that this polling location was going to be using a different type of voting technology than in previous years?**

	Total	Age				Gender		Education					Income			Technology Level				Voting Frequency			Vendor Range	
		18-34	35-49	50-64	65+	M	F	< HS	HS grad	Some coll	Coll grad	PG	< \$50K	\$50K - \$100K	Over \$100K	Never	< 1/week	1-3/week	4 or +/week	Some or fewer	Most elections	Every election	High	Low
<b>Yes</b>	79%	70%	72%	82%	85%	78%	80%	72%	76%	79%	82%	83%	76%	80%	77%	83%	83%	76%	67%	70%	80%	80%	83%	68%
<b>No</b>	20%	30%	27%	17%	14%	21%	19%	25%	23%	20%	18%	17%	23%	19%	23%	16%	16%	24%	33%	26%	20%	20%	16%	30%
<b>DK/Blank</b>	1%		0%	0%	1%	0%	0%	3%	1%	0%			1%	1%		1%	1%	0%		4%		1%	0%	2%
<b>Count</b>	1478	100	452	453	436	663	764	101	318	358	293	355	371	449	368	462	323	483	130	51	393	989		

**Q5. Did you receive assistance when you voted today?**

	Total	Age				Gender		Education					Income			Technology Level				Voting Frequency			Vendor Range	
		18-34	35-49	50-64	65+	M	F	< HS	HS grad	Some coll	Coll grad	PG	< \$50K	\$50K - \$100K	Over \$100K	Never	< 1/week	1-3/week	4 or +/week	Some or fewer	Most elections	Every election	High	Low
<b>Yes</b>	59%	56%	58%	58%	61%	58%	59%	67%	62%	54%	56%	60%	64%	55%	59%	59%	56%	58%	66%	61%	57%	59%	71%	42%
<b>No</b>	40%	44%	41%	42%	36%	41%	40%	30%	37%	44%	43%	40%	34%	44%	41%	40%	41%	41%	34%	31%	43%	40%	28%	56%
<b>DK/Blank</b>	2%	1%	1%		3%	1%	1%	3%	1%	2%	1%	0%	2%	1%	0%	2%	3%	1%		8%	0%	1%	1%	2%
<b>Count</b>	1478	100	452	453	436	663	764	101	318	358	293	355	371	449	368	462	323	483	130	51	393	989		

**Q6. Once you got to the voting machine, about how long did it take you to vote?**

	Total	Age				Gender		Education					Income			Technology Level				Voting Frequency			Vendor Range	
		18-34	35-49	50-64	65+	M	F	< HS	HS grad	Some coll	Coll grad	PG	< \$50K	\$50K - \$100K	Over \$100K	Never	< 1/week	1-3/week	4 or +/week	Some or fewer	Most elections	Every election	High	Low
<b>Less than 2 Minutes</b>	40%	47%	42%	46%	32%	39%	42%	25%	41%	43%	42%	41%	37%	43%	43%	38%	41%	43%	41%	40%	37%	42%	46%	33%
<b>2 to 4 Minutes</b>	47%	46%	48%	48%	48%	48%	48%	45%	46%	48%	48%	51%	46%	49%	48%	47%	50%	49%	48%	48%	52%	46%	47%	45%
<b>5 to 7 Minutes</b>	9%	6%	8%	4%	13%	9%	7%	16%	10%	7%	8%	6%	12%	6%	8%	10%	7%	7%	10%	10%	8%	8%	5%	14%
<b>8 to 10 Minute</b>	2%		1%	1%	5%	2%	2%	8%	2%	1%	1%	1%	2%	1%	1%	4%	1%	1%	1%	3%	2%	2%	0%	4%
<b>More than 10 minutes</b>	1%		0%	1%	1%	0%	1%	3%	1%	1%	0%		2%		0%	1%	1%	1%				1%	0%	3%
<b>DK/Blank</b>	1%		0%	1%	2%	1%	1%	3%	0%			1%	1%	2%		1%	1%	0%			1%	1%	2%	3%
<b>Count</b>	1478	100	452	453	436	663	764	101	318	358	293	355	371	449	368	462	323	483	130	51	393	989		